USDA-SCS
Section II-E
Area 7

LAKEBED

RANGE SITE DESCRIPTION

PE 25-31

Land Resource Area: High Plains, Rolling ~~Red &~~ Plains
~~Southwest High Plains~~

1. TOPOGRAPHY AND ELEVATION: This site occurs on nearly level areas with concave surfaces in the beds of intermittent lakes. The soil surface of undisturbed areas has a gilgai microrelief. Elevation ranges from 2000 to 4000 feet.

2. SOILS:

   a. Soils that characterize this site are clays that are more than 20 inches deep. They are poorly drained and very slowly permeable. When dry and unprotected by vegetation, the soil is highly susceptible to wind erosion. Water availability to plants varies from excessive to non-available, depending on the present water regime.

   b. Some soil taxonomic units which characterize this site are: Randall clay, and Lipan clay, depressional.

   c. Specific site location in field office area:

3. CLIMATE - See Field Office Climatic Description

4. CLIMAX VEGETATION:

   a. The climax plant community varies considerably among playa lakes and is dependent upon size, inundation period and available runoff. However, the climax plant community is dominated by short and mid grasses, sedges, and forbs. The smaller lakes occasionally support stands of western wheatgrass, while others that have long periods of inundation, primarily support sedges and rushes. Still other lakebed areas support 10-12 species, many which may be annuals. Areas supporting the larger variety of vegetation are usually the larger lakebeds. A range is given for some species because of the fluctuations common to the site.

Approximate
Relative Percentage

Grasses, Sedges	70%	Forbs	30%
Vine-mesquite	40	Smartweed	10
Buffalograss		Arrowhead	15
Spike sedges	15	Slimleaf goosefoot	
Blue grama	T	Beakpod evening primrose	
Knotgrass	5	Bur ragweed	T
Western wheatgrass	5	Kochia	T
Cane bluestem		Frog fruit	T
White tridens	5	Fleabane	T
		Annual forbs	5

*b. The amount of standing water, length of time accumulated water is in the lake, lengths and severity of following dry periods, dictate the successional or regressional stage of vegetative development at any give time. Dramatic fluctuations in kinds and amounts of vegetation should be expected.

As a result of extended dry periods, buffalograss and blue grama will increase along with such annuals as little barley, barnyard-grass and six weeks fescue. Many annual forbs invade. Vine-mesquite will tolorate excessively wet soils. With prolonged inundation, blue grama, buffalograss and vine-mesquite are killed out and replaced by water tolerant sedges and rushes. The lakes in the southwestern high plains are usually characterized by more grass vegetation than sedges and forbs.

Changes in vegetation are created more by variation in water availability and permenancy than by grazing pressure.

c. The annual yields vary widely from year to year and are dependent on available runoff water. Approximate total annual yields of this site in excellent condition ranges from 500 pounds in dry years to as much as 5000 pounds, depending on inundation or ideal moisture for forage production.

5. WILDLIFE NATIVE TO THE SITE: This site is inhabited by quail and dove. When flooded, shorebirds and migratory waterfowl frequent this site. Most of the forbs on this site produce food and limtied cover for these species. Where pheasant have been introduced on the high plains, they prefer the playas for cover and nesting.

6. AESTHETIC AND RELATED VALUES: When these playas are inundated, waterfowl can be readily observed in the winter months. The larger playas that remain wet longer furnish plant life that attract many small animals and song birds.

7. HYDROLOGIC CHARACTERISTICS: Since they occur on the floor of playas and depressions, these soils are not subject to water erosion. They receive runoff water from surrounding uplands and accumulate coarser sediments along the outer edges. When dry, these soils form cracks and take in water rapidly until saturated. The cracks then "swell" shut and intake becomes extremely slow. Perennial vegetation is hard to maintain due to long periods of inundation by water.

8. GUIDE TO INITIAL STOCKING RATE:

a.

Condition Class	Climax Vegetation Percentage	AC/AU/YL
Excellent	76 - 100	6 - 10
Good	51 - 75	8 - 20
Fair	26 - 50	18 - 35
Poor	0 - 25	32+

9. RELATIVE FORAGE QUALITY OF SPECIES:

a. Cattle:

PRIMARY*	SECONDARY*	LOW VALUE*
Vine-mesquite	Smartweed	Annual grasses
Western wheatgrass	Slimleaf goosefoot	Other annual forbs
Blue grama	Kochia	
Buffalograss	Beaked evening primrose	
Knotgrass	Arrowhead	
	Sedges & Rushes	

b. Quail, dove and pheasant:

PRIMARY**	SECONDARY**	LOW VALUE**
Annual forb seed	Sedge seed	Other grass seed
Bur ragweed	Barnyardgrass	

c. Migratory Waterfowl:

Smartweed	Algae and other aquatic vegetation
Slimleaf goosefoot	Rush species
Barnyardgrass	
Arrowhead	

DATE: _____

APPROVED BY: _____

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